

REMARKS

Claims 5 and 13 are objected to because of informalities. Claims 1-33 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over the admitted prior art of the instant application in view of U.S. Patent No. 5,204,879, issued to *McConnell*. Claims 14-17 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over the admitted prior art in view of *McConnell*, as applied to claims 2 and 4, and further in view of U.S. Patent No. 5,852,630, issued to *Langberg et al.* (hereinafter "*Langberg*").

In this Response, claims 1, 5, 8, 13 and 14 are amended. Claims 2 and 3 are canceled. No claims are added. Accordingly, claims 1 and 4-17 are pending in the present application. Applicants respectfully request reconsideration of the application in view of the above amendments and remarks made herein.

I. Claim Objections

Claims 5 and 13 are amended to correct the informalities noted by the Examiner. Withdrawal of the instant claim objections is respectfully requested.

II. Rejections Under 35 U.S.C. § 103

Claims 1-13 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over the admitted prior art in view of *McConnell*, for the reasons set forth on pages 2-6 of the Office Action.

With regard to claim 1, the Examiner asserts that the admitted prior art, as expressed on pages 2-3 of the instant specification, teaches all of the claimed subject matter of claim 1 "except for specifically teaching a plurality of symbol recovery units,

each generating a corresponding synchronous signal and a lock signal, wherein the lock signals are selectively enabled to select one of the synchronous signals, based on pattern variations of the transmission signal detected by the symbol recovery units.”

Office Action mailed June 10, 2005, Page 3. The Examiner asserts that *McConnell* teaches “a plurality of symbol recovery units, each generating a corresponding synchronous signal and a lock signal, wherein the lock signals are selectively enabled to select one of the synchronous signals, based on pattern variations of the transmission signal detected by the symbol recovery units,” as in claim 1. Applicants disagree and respectfully submit that *McConnell* does not cure the acknowledged deficiencies in the admitted prior art.

Moreover, Applicants submit that *McConnell* neither teaches nor suggests “a level controller for limiting a voltage range of the demodulated signal to a predetermined voltage range, wherein the level controller excludes voltage levels outside a voltage range that includes sampling points of the synchronous signals, the sampling points being used in recovering the original data,” as in claim 1, as amended.

In *McConnell*, arbitrarily scaled baseband data may be considered as occurring at “valid” levels and represent symbol centers (col. 2, lines 54-60). A detection algorithm may be utilized to examine samples at sample points over a window length of n-symbols. These symbols may then be compared with the valid levels previously determined to within some permitted tolerance range (col. 3, lines 3-8). *McConnell* discloses:

If such comparison indicates that the sample level is within the allowed tolerance range with respect to the valid, or permitted levels, a score of 1.0 may be assigned for that sample, otherwise a score of zero (0) is applied. This comparison process is performed over the entire n-symbol length constraint, with respective scores at each of the

successive symbol locations being cumulatively added. The resultant score may then be compared to some set number which is arbitrarily assigned to represent the minimally acceptable threshold level.

Col. 3, lines 8-18. Therefore, *McConnell* teaches sampling at preselected locations on a signal waveform, assigning a score of 1.0 or zero for a sample if that sample is within a permitted tolerance range, and determining if an accumulative score is within a value arbitrarily assigned to represent a minimally acceptable threshold level.

Nowhere does *McConnell* teach or suggest “a level controller for limiting a voltage range of the demodulated signal to a predetermined voltage range, wherein the level controller excludes voltage levels outside a voltage range that includes sampling points of the synchronous signals, the sampling points being used in recovering the original data,” as in claim 1, as amended. Therefore, for at least the above reasons, claim 1 is patentable and non-obvious over *McConnell*.

Applicants submit that inasmuch as claims 4-7 are dependent on claim 1, and claim 1 is patentable over the cited reference, claims 4-7 are patentable as dependent on a patentable independent claim. Withdrawal of the instant rejections is respectfully requested.

With respect to claim 8, as amended, analogous arguments to those made above in connection with the rejection of claim 1 apply. Moreover, Applicants submit that inasmuch as claims 9 and 10 are dependent on claim 1, and claim 1 is patentable over the cited reference, claims 9 and 10 are patentable as dependent on a patentable independent claim. Accordingly, withdrawal of the instant rejections is respectfully requested.

With regard to claim 11, it is respectfully submitted that the Office Action does not present a prima facie case of obviousness. In the Office Action, the Examiner relies on rejection of claim 1 for support of rejection of claim 11. Applicants respectfully note that claims 1 and 11 are of varying scope. Claim 11 includes the features of "tracking signal patterns of the demodulated signal to generate a plurality of synchronous signals" and "selecting one of the synchronous signals based on a detected phase variation of the demodulated signal," which are not recited in claim 1. Applicants respectfully submit that it is unclear what teachings the Examiner is intending to rely upon as a basis for the rejection of claim 11. Therefore, for the above-stated reasons, the Office Action on its face is legally deficient to establish a prima facie case of obviousness against claim 11. Accordingly, the rejection of claim 11 should be withdrawn.

Claims 14-17 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over the admitted prior art in view of *McConnell*, as applied to claims 2 and 4, and further in view of *Langberg*, for the reasons set forth on pages 7-8 of the Office Action.

As to claim 14, the Examiner asserts that the admitted prior art, as expressed on pages 2-3 of the instant specification, and *McConnell* discloses all the subject matter of claim 14 "except for the method written by a software program embodied in a computer-readable medium." Office Action mailed June 10, 2005, Page 7. Applicants disagree and respectfully note that *Langberg* fails to cure the deficiencies of *McConnell* as discussed above. Moreover, Applicants respectfully submit that neither of the cited references teaches or suggests "selectively activating the lock signal based on a detected phase variation of the demodulated signal to select one of the synchronous

signals," as in claim 14, as amended. Therefore, for at least the above reasons, claim 14 is patentable and non-obvious over the combination of *McConnell* and *Langberg*.

Applicants submit that inasmuch as claims 15-17 are dependent on claim 14, and claim 14 is patentable over the cited references, claims 15-17 are patentable as dependent on a patentable independent claim. Withdrawal of the instant rejections is respectfully requested.

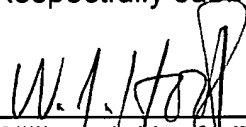
In view of the foregoing, the rejections under 35 U.S.C. § 103(a) should be withdrawn.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance. Issuance of a Notice of Allowance is respectfully requested.

Respectfully submitted,

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